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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,509	09/29/2005	Yukio Watanabe	64253(70904)	6028
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EXAMINER				
BIBBINS, LATANYA				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/551,509

**Applicant(s)**

WATANABE ET AL.

**Examiner**

LaTanya Bibbins

**Art Unit**

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,5 and 11 is/are rejected.  
7) ☒ Claim(s) 2-4 and 6-10 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 29 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☒ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SB/888)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Specification***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Drawings***

3. Figures 23, 24(a), 24(b), 25, 26(a) and 26(b) should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Ohuchida (US PGPub Number 2002/0018432 A1), herein Ohuchida '432.**

Regarding claim 1, Ohuchida discloses an optical pickup which carries out tracking by three beams with respect to an optical disc (Figures 25 and 34), the optical pickup comprising: a one-packaged light source for emitting a light beam having a first wavelength and a light beam having a second wavelength (Figure 34 elements 31 and 39); a grating for splitting a light beam, emitted from the one-packaged light source, into a main beam and two sub-beams (Figure 34 element 41); an objective lens for focusing the main beam and the sub-beams on the optical disc (Figure 25 element 34); and a photodetector for detecting push-pull signals from respective light, of the main beam and the sub-beams, reflected by the optical disc (Figure 25 element 38), the grating including first and second regions through which the light beams, having first and second wavelengths, respectively, pass (Figures 10, 12, and 14 and the regions indicated by L<sub>1</sub> and L<sub>2</sub>), each of the regions including a region having diffraction grooves whose concavoconvex pitches are partially shifted so that a pattern is provided to cause each of the first and second light beams to have a partial phase shift (Figures 10, 12, and 14 elements 12 and 13 and the discussion in paragraph [0093]), and the pattern

being set so that amplitudes of the push-pull signals of the sub-beams are substantially cancelled in each of the light beams having different wavelengths (Figures 10, 12, and 14 elements 12 and 13 and the discussion in paragraphs [0093], [0131] and [00136]).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohuchida (US PGPub Number 2002/0018432 A1), herein Ohuchida '432 in view of Ohuchida et al. (US PGPub Number 2001/0026523 A1), herein Ohuchida '523.**

Regarding claim 5, Ohuchida '432 discloses the optical pickup as set forth in claim 1, as noted in the 35 U.S.C. 102(b) rejection above. Ohuchida '432 fails to disclose, while Ohuchida '523 discloses wherein the grating is provided so that a region contributing to a tracking signal detection of the light beam having the first wavelength and a region contributing to a tracking signal detection of the light beam having the second wavelength overlap only partially or do not overlap (see Figure 12 element 52 where the 650 nm and 780 nm wavelengths only partially overlap).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ohuchida '432 and Ohuchida

'523. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to arrange the holograms at positions which correspond to the FFP of the light beams of different wavelengths, and therefore a simple structure can be achieved (as suggested by Ohuchida '523 in paragraph [0097]).

**Regarding claim 11**, the combination of Ohuchida '432 and Ohuchida '523 disclose the optical pickup as set forth in claims 5. Ohuchida '432 further discloses wherein the grating is integrated in an integrated hologram laser unit (see paragraph [0099]).

***Allowable Subject Matter***

- 8. Claims 2-4 and 6-10** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 9.** The following is a statement of reasons for the indication of allowable subject matter.

**Regarding claims 2-4**, none of the references of record, alone or in combination suggest or fairly teach the optical pickup as set forth in claim 2, including all of the limitations of claim 1 wherein the first region is inside the second region on the grating, the first and second regions contributing to a tracking signal detection; **the pattern causing the partial phase shift includes a first phase shift pattern and a second phase shift pattern which are formed substantially parallel to a track; the first**

**phase shift pattern is provided so as to include part of the first region and part of the second region; and the second phase shift pattern is provided so as to include only part of the second region.**

**Regarding claim 6**, none of the references of record, alone or in combination suggest or fairly teach the optical pickup as set forth in claim 6, including all of the limitations of claim 5, **wherein a pattern causing the light beam having the first wavelength to have the phase shift and a pattern causing the light beam having the second wavelength to have the phase shift are formed within respective beam diameters so that the tracking signal detections have no interaction.**

**Regarding claims 7-10**, none of the references of record, alone or in combination suggest or fairly teach the optical pickup as set forth in claim 7, including all of the limitations of claim 5 wherein **a pattern causing a phase shift between a first boundary and a second boundary is different from a pattern of other region(s) on the grating, the first boundary passing through substantially a center of the light beam having the first wavelength and being substantially parallel to a track direction of the optical disc, and the second boundary passing through substantially a center of the light beam having the second wavelength and being substantially parallel to the track direction of the optical disc.**

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaTanya Bibbins whose telephone number is (571)270-

1125. The examiner can normally be reached on Monday through Friday 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LaTanya Bibbins/  
Examiner, Art Unit 2627

/Thang V. Tran/  
Primary Examiner, Art Unit 2627